

SAND PINE

Pinus clausa (Chapm.) Vasey

OTHER COMMON NAMES: Scrub pine, Spruce pine, Florida spruce pine.

FORM: Usually 15 to 20 feet tall, rarely a foot in diameter, occasionally 70-80 feet tall with a diameter of 2 feet; branches spread to the ground and form a flat bushy top.

BARK: 1/3-1/2 inch thick on lower part of tree, deeply divided by narrow grooves into irregularly shaped and elongated plates that separate into bright red-brown scales, bark on upper part of trunk and branches ashy-gray.

TWIGS: Pale yellow at first, later ashy-gray.

LEAVES: Slender, flexible, dark green, in pairs, 2-3 1/2 inches long, and falling when 3 to 4 years old.

FLOWERS: Male, in short crowded spikes, dark orange color; female, lateral on stout peduncles.

FRUIT: Cones elongated, ovoid-conic, often oblique at base, usually clustered, reflexed, 2-3 1/2 inches long, nearly sessile or short-stalked, with convex scales armed with straight or recurved prickles, some open soon after ripening, others remain closed 3-4 years, others unopened become entirely covered by tissues of the stem; seeds triangular, 1/4 inch long, black, wings 3/4 inch long.

WINTER BUDS: Oblong-cylindrical, narrowed at apex, about 1/4 inch long.

WOOD: Soft, light, not strong, brittle, light orange color or yellow.

USES: Pulp, erosion control, landscaping. Historical uses: ship masts.

HABITAT: Sandy soil and dunes, will grow in pure sand.

DISTINGUISHING CHARACTERISTICS: A low spreading tree; some cones persistent and become imbedded in the wood; leaves slender, limber, dark green, 2-3 inches long.

DISTRIBUTION IN ALABAMA: Southern Alabama, on the coast of Baldwin County.

EXPLANATION OF PLATE

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| 1. A branch with staminate flowers | 10. A fruiting branch |
| 2. A staminate flower | 11. A cone scale |
| 3. An anther, front view | 12. A cone scale, upper side, with its seeds |
| 4. An anther, side view | 13. Vertical section of a seed |
| 5. Diagram of the staminate flower | 14. An embryo |
| 6. A branch with pistillate flowers | 15. Section of an imbedded cone |
| 7. A pistillate flower | 16. Tip of a leaf |
| 8. A scale of a pistillate flower, upper side, with its ovules | 17. Cross section of a leaf |
| 9. A scale of pistillate flower, lower side, with its bract | 18. A seedling plant |



***Pinus clausa* (Chapm.) Vasey**

SHORTLEAF PINE

Pinus echinata Mill.

OTHER COMMON NAMES: Southern pine, Yellow pine, Spruce pine, Rosemary pine, Old field pine.

FORM: Usually 80-100 feet high, with a tall tapering trunk 2-4 feet in diameter; crown relatively short, pyramidal or rounded; limbs more or less in whorls.

BARK: On old trunks 3/4-1 inch thick, broken into large, irregularly shaped plates, covered with small, closely appressed, light cinnamon-red scales, pitch pockets visible in plates.

TWIGS: At first pale green or violet-colored with a glaucous bloom, become dark red, brown tinged with purple, bark begins to shed in large scales in the third year.

LEAVES: In clusters of twos and threes, slender, dark bluish-green, 3-5 inches long, begin to fall at the end of their second year and continue to drop until 5 years old.

FLOWERS: Male in short crowded clusters, pale purple; female, in clusters of 2 or 3 on stout ascending stems, pale rose color.

FRUIT: Mature cones are short stalked, dull brown in color, attached more or less at an angle pointing backwards often in clusters of twos and threes, usually remain on trees 2-3 years after maturity; cones more or less conical to oblong-ovate, 1 1/2-2 1/2 inches long and are the smallest of the four important southern pines, each cone scale terminated with a temporary prickle, or broad-based spine; seed pale brown, triangular, 3/16 inch long with wing about 1/2 inch long.

WINTER BUDS: Ovoid, dull-pointed, covered with sharp-pointed, dark brown scales.

WOOD: Resinous, hard, strong, coarse grained, orange colored or yellow-brown, very variable in quality and in the thickness of nearly white sapwood, resembles longleaf pine but lighter. One of the most desirable of the yellow pines for commercial use.

USES: Lumber, carved work, excelsior, crates, pulp. Historical uses: mine props, barrel staves.

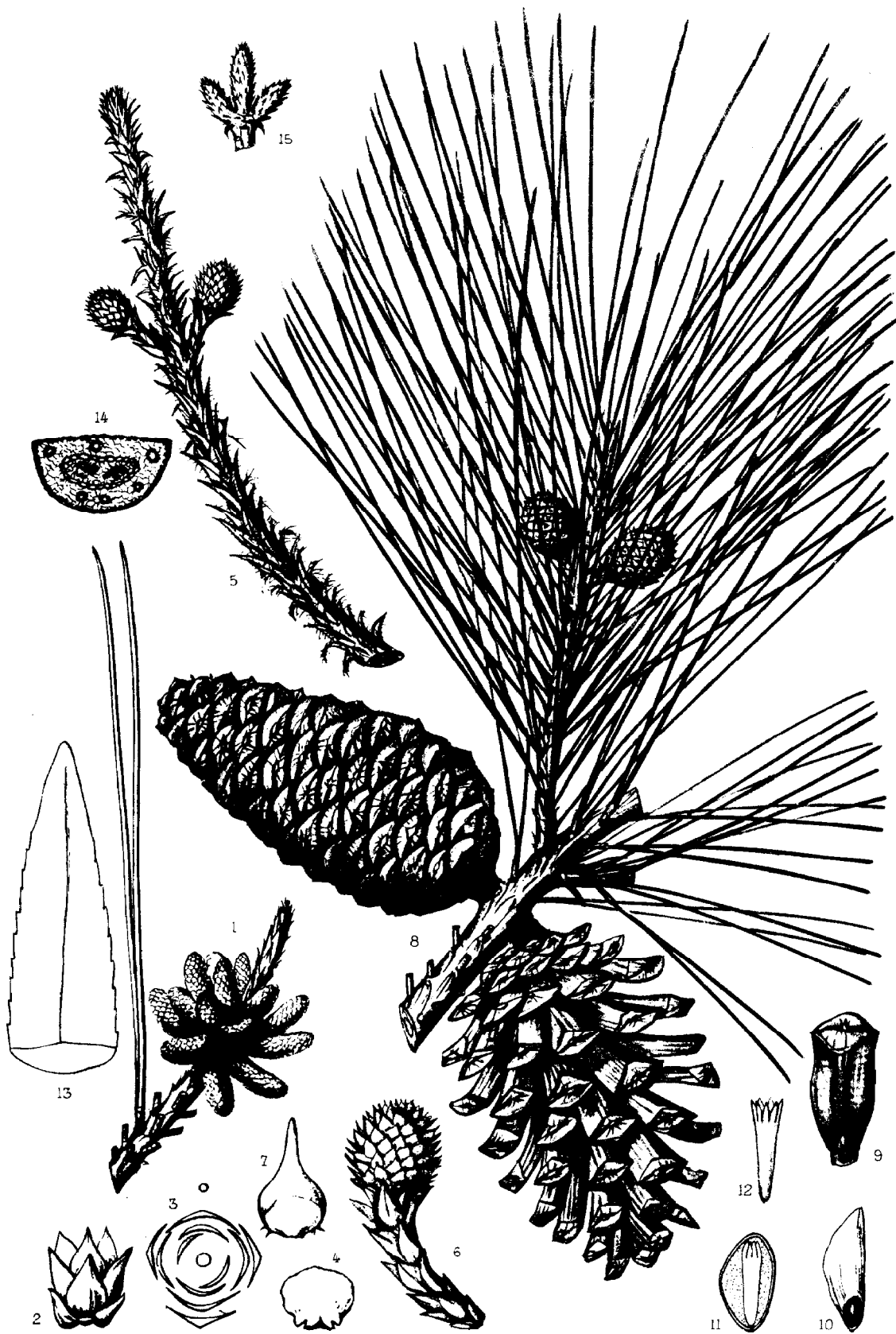
HABITAT: Prefers well drained light sandy or gravelly clay soil, can withstand lower temperatures than any other important southern pine.

DISTINGUISHING CHARACTERISTICS: Needles usually in clusters of twos; cones tend to point backwards on the twigs; sprouts readily from the stump of young trees; bark broken into plates which peel off in irregular scales.

DISTRIBUTION IN ALABAMA: Mostly in the northern half of the state.

EXPLANATION OF PLATE

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| 1. An end of a branch with staminate flowers | 7. A scale of a pistillate flower, lower side, with its bract |
| 2. An involucre of a staminate flower | 8. A fruiting branch |
| 3. Diagram of the involucre of the staminate flower | 9. A cone scale, lower side, with its bract |
| 4. An anther, front view | 10. A seed |
| 5. An end of a branch, with pistillate flowers | 11. Vertical section of a seed |
| 6. A pistillate flower | 12. An embryo |
| | 13. Tip of a leaf |
| | 14. Cross section of a leaf |



Pinus echinata Mill.